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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/965,537	09/26/2001	Jonathan Lacey	10004238-1	3740

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EXAMINER

PETKOVSEK, DANIEL J

ART UNIT PAPER NUMBER

2874

DATE MAILED: 06/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/965,537

Applicant(s)

LACEY, JONATHAN

Examiner

Daniel J Petkovsek

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on March 25, 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The corrected or substitute drawings were received on March 25, 2002. These drawings have been acknowledged.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The statement, "including a second fiber optic cable for use in implementing route diversity," is vague and indefinite since there is no statement claimed where in the network this cable is placed, with no clear explanation how the route becomes diversified as such.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2874

5. Claims 1, 2, 5, 6, 8, 11, 12, and 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagahori et al. U.S.P. No. 5,896,213.

Nagahori et al. U.S.P. No. 5,896,213 teaches (ABS, Figs. 2, 4, and 5, summary, claim 1) an optical fiber network system comprising: an optical transmitter 6 for broadcasting an optical signal to a plurality of optical receivers 31-3N; an array optical fiber cable element 5 having a plurality of individual fibers 51-5N corresponding to the end user; and a branching point 4 (splitter 1xN star connection) which branches the signal to the user, which clearly, fully meets Applicant's claimed limitations. Regarding method claims 18-20, the method for broadcasting information is inherent from the optical network.

Regarding claim 2, the network is arranged as a star. Regarding claims 5 and 6, the branch point has a 1xN fiber splitter. Regarding claim 8, the branching is located in central office 1. Regarding claims 11 and 12, there is a plurality of optical receivers. Regarding claim 17, all optical fibers have signals.

6. Claims 1, 5, 6, 8, 11, 12, and 17-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Ravasio WO 01/50644 A1.

Ravasio WO 01/50644 A1 teaches (ABS, Figs. 3-8) a network (and inherent method of using same) comprising: an optical transmitter for broadcasting optical signals to a plurality of users at different locations; an optical cable 9 that has individual fibers, and branching point in which the fibers branch to different users, which clearly, fully meets Applicant's claimed limitations.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3, 4, 7, 9, 10, and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagahori et al. U.S.P. No. 5,896,213.

Nagahori et al. U.S.P. No. 5,896,213 teaches an optical fiber network system (and inherent method of using same) comprising: an optical transmitter 6 for broadcasting an optical signal to a plurality of optical receivers 31-3N; an array optical fiber cable element 5 having a plurality of individual fibers 51-5N corresponding to the end user; and a branching point 4 (splitter 1xN star connection) which branches the signal to the user. Nagahori et al. '213 does not explicitly teach some the following dependent limitations upon independent claim 1:

Nagahori et al. '213 does not explicitly teach that the broadcast network is arranged as physical bus, or that the branch point includes a tree of 1x2 splitters (claims 3 and 4). These arrangements of the optical network would have been obvious at the time the invention was made to a person having ordinary skill in the art since they are well-known elements in optical networking systems. A physical bus busses lines to any desired path, which could obviously be implemented in Nagahori et al. '213. The use of a tree of 1x2 splitters is a well-known way in the art to create more output optical paths to the user as the individual fibers are split, and is obvious to implement to the branch unit of Nagahori et al. '213.

Art Unit: 2874

Nagahori et al. '213 does not explicitly teach that the branch point is located in the field (claim 9). This element is a non-critical limitation of the optical network, and also, the branching point could obviously be located in the field, yet would not have the protection as located in the central office. However, the functionality of the branch point (in the optical network) of Nagahori et al. '213 would be unchanged in the field.

Nagahori et al. '213 does not explicitly teach the use of a second fiber optic cable in the network (claim 10). Since cables are a form of protection of individual fibers, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to use protective cable-like members around the fibers for protection of the fibers in the network. More cable type devices would protect the fibers as the optical signal is transmitted to the user.

Nagahori et al. '213 does not explicitly teach certain properties of amplification, modulation, (de)multiplexing, and photo-detection for the optical signal as it is transmitted/received (claims 7 and 13-16). Since these properties are well-known in the art in order to improve the quality of optical signals (amplification/modulation), allow more information to be transmitted/received (multiplexing/demultiplexing of optical signals), and detect optical signals at receivers (photo-detection), it would have been obvious at the time the invention was made to a person having ordinary skill in the art to implement the network of Nagahori et al. '213 with these well-known tools in the art of sending optical transmission data more efficiently across the broadcast network.

Art Unit: 2874


Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, with respect to the state of the art of optical fiber networking elements with branching capabilities: PTO-892 forms references B-J, and N.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J Petkovsek whose telephone number is (703) 305-6919. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (703) 308-4819. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 872-9321.


Daniel Petkovsek
May 23, 2003


Brian Healy
Primary Examiner